

Figure 1. The effect of the number of trials (n) on the probability of detecting a change in the mean of a normal distribution. The figure shows three curves for different values of the standard deviation (σ): $\sigma = 0.5$ (solid line), $\sigma = 1$ (dashed line), and $\sigma = 2$ (dotted line). The x-axis represents the number of trials (n) from 0 to 100, and the y-axis represents the probability of detection from 0 to 1. All curves start at 0.5 for $n=0$ and increase as n increases, approaching 1. The curve for $\sigma = 0.5$ rises most steeply, followed by $\sigma = 1$, and then $\sigma = 2$.

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